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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/720,980  | 11/24/2003  | Mikihiko Ito         | 81788.0262              | 3398             |
| 26021   | 7590        | 05/23/2005           |                         |                  |
| HOGAN & HARTSON L.L.P.<br>500 S. GRAND AVENUE<br>SUITE 1900<br>LOS ANGELES, CA 90071-2611 |             |                      | EXAMINER<br>HOANG, HUAN |                  |
|   |             |                      | ART UNIT<br>2827        | PAPER NUMBER     |

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/720,980

Applicant(s)

ITO ET AL.

Examiner

Huan Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1102403.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-20 are objected to because of the following informalities:

The phrase "in series" (claim 1, line 12) should be deleted. According to Fig. 3, the second switching element and the third switching element are not connected in series between the gate of the first switching element and the first reference voltage. It is impossible to connect each of the second switching element and the third switching element between the gate ( $\Phi_L$ ) of the first switching element and the first reference voltage source ( $V_{PP}$ ) because one element can not be connected in series between two nodes. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim et al.

Lim et al. discloses all the limitations recited in claim 1 and 3 (first switching element 42, Fig. 5, a first voltage source  $V_{PP}$ , a second switching element P9, a third switching element N31, the first timing shift circuit I1 and I2, Fig. 6 and a second

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reference voltage source RWL, Fig. 7) except for the third switching element connected between the gate of the first switching element and the first reference voltage source as recited in claim 1 and the third switching element being a P-channel transistor as recited in claim 3. However, as disclosed by Lim et al. (column 10, lines 1-3), an external power supply voltage instead of  $V_{CC}$  can be applied to the third switching element N13, Fig. 6 to easily control a level of the control signal applied to the bit line isolation circuit (column 10, lines 10-12), and the P-channel transistor and the N-channel transistor are equivalent in the art to provide a switching function. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a power supply  $V_{PP}$  instead of  $V_{CC}$  applied to the third switching transistor in order to easily control a level of the control signal applied to the bit line isolation circuit and to use the P-channel transistor instead of the N-channel transistor to provide a switching function because they are equivalent in the art.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lim et al. in view of Kim et al.

Claim 2 differs from claim 1 in reciting that the first timing shift circuit is an RC delay circuit which is composed of a first resistor and a first capacitor. However, Kim et al. discloses an RC delay composed of resistor R3 and capacitor CM1 (column 4, lines 62-63) to delay a control signal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an RC delay composed of a resistor and a capacitor to delay a control signal in a memory device.

***Allowable Subject Matter***

5. Claims 4-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

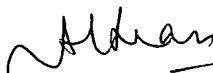
The prior art does not teach or suggest the detailed first timing shift circuit and the different channel widths of the second switching element and the third switching element.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (571) 272-1779. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Huan Hoang  
Primary Examiner  
Art Unit 2827

HH  
5/19/05.